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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,286	11/19/2001	Tomoki Takahashi	Q67251	8469

7590 08/26/2003

SUGHRUE, MION, ZINN, MACPEAK & SEAS
2100 PENNSYLVANIA AVENUE N.W.
Washington, DC 20037

EXAMINER

NGUYEN, HANH N

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 08/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/988,286

Applicant(s)

TAKAHASHI ET AL.

Examiner

Nguyen N Hanh

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendments filed on 5/27/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 5-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,2,5,10 are rejected under 35 U.S.C. 102(b) as being anticipated by Tomoyoshi (Japanese Patent Laid Open No. 51-66409).

Regarding claim 1, Tomoyoshi discloses an alternator comprising: a case; a rotor disposed inside said case, said rotor including a rotor coil for generating a magnetic flux on passage of an electric current therethrough, and a plurality of claw-shaped magnetic poles extending in an axial direction and covering said rotor coil, said claw-shaped magnetic poles being magnetized into North-seeking (N) and South-seeking (S) poles by said magnetic flux, a stator including a stator core provided with a plurality of slots formed so as to extend axially and be spaced circumferentially, and a stator winding mounted to said stator core (inherent in structure of Fig. 1); at least one brush (8) for supplying electric current from an electric power supply to said rotor coil; a brush holding assembly (21) secured to said case, said brush holding assembly holding said brush within a holding portion and including a cover (6 and 11 in Fig. 2) capable of being opened to remove said brush; a brush terminal (9 in Fig. 3) electrically connected to said brush; and an open portion for removal and insertion of said brush being formed at a position on said case facing said cover (Fig. 1), wherein said brush holding

Art Unit: 2834

assembly includes a holding assembly terminal (5 in Fig. 1), said holding assembly terminal and said brush terminal are electrically connected (by means of cover 6 and 11) by a connection member (bolt 13), and said holding assembly terminal, said brush terminal and said connection member are exposed in said open portion.

Regarding claim 2, Tomoyoshi also shows an electrical rotary machine wherein said brush holding assembly extends to a vicinity of said open portion.

Regarding claim 5, Tomoyoshi also shows that the alternator wherein said connection member is a screw (13 in Fig. 2).

Regarding claim 10, Tomoyoshi also shows that the alternator further comprising a cap member (15 in Fig. 1) removably mounted over said open portion for allowing access to said brush holding assembly via said open portion.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tomoyoshi in view of Janette.

Regarding claim 6, the alternator disclosed by Tomoyoshi shows all limitations of the claimed invention except showing the screw is inserted into and removed from said connection portion in a circumferential direction relative to said rotor.

Art Unit: 2834

However, Janette shows a brush holding assembly (Fig. 2) wherein the screw (13) is inserted into and removed from said connection portion in a circumferential direction relative to said rotor for the purpose of providing a connection which will be easily applied as well as durable and efficient in operation (Col. 1, lines 5-15).

Since Tomoyoshi and Janette are in the same field of endeavor, the purpose disclosed by Janette would have been recognized in the pertinent art of Tomoyoshi.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to form an alternator wherein said brush holding assembly has a screw member is inserted into and removed from said connection portion in a circumferential direction relative to said rotor as taught by Janette for the purpose of providing a connection which will be easily applied as well as durable and efficient in operation.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tomoyoshi in view of Hyatt, Jr. et al.

Regarding claim 7, the structure disclosed by Tomoyoshi shows all limitations of the claimed invention except showing the screw is inserted into and removed from said connection portion in an axial direction relative to said rotor.

However, Hyatt, Jr. et al. show a brush holding assembly (Fig. 1) wherein the screw (56) is inserted into and removed from said connection portion in an axial direction relative to said rotor for the purpose of providing a connection which will be easily applied.

Art Unit: 2834

Since Tomoyoshi and Hyatt, Jr. et al. are in the same field of endeavor, the purpose disclosed by Tomoyoshi would have been recognized in the pertinent art of Hyatt, Jr et al.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to form an alternator wherein said brush holding assembly has a screw member is inserted into and removed from said connection portion in a circumferential direction relative to said rotor as taught by Hyatt, Jr et al. for the purpose of providing a connection which will be easily applied.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tomoyoshi in view of Applicant's admitted prior art.

Regarding claim 8, Tomoyoshi shows all of the limitations of the claimed invention except showing the alternator wherein a regulator for adjusting a magnitude of an alternating voltage generated in said stator and a cooling plate placed in contact with said regulator are disposed on said brush holding assembly so as to overlap in an axial direction relative to said rotor.

However, Applicant's admitted prior art (Figure 18 in the specification) shows the alternator wherein a regulator (13) for adjusting a magnitude of an alternating voltage generated in said stator and a cooling plate (14) placed in contact with said regulator are disposed on said brush holding assembly so as to overlap in an axial direction relative to said rotor for the purpose of improving cooling.

Art Unit: 2834

Since Tomoyoshi and Applicant's admitted prior art are all in the same field of endeavor, the purpose disclosed by Applicant's admitted prior art would have been recognized in the pertinent art of Tomoyoshi.

It would have been obvious to one having ordinary skill in the art to form an alternator wherein a regulator for adjusting a magnitude of an alternating voltage generated in said stator and a cooling plate placed in contact with said regulator are disposed on said brush holding assembly so as to overlap in an axial direction relative to said rotor as taught by Applicant's admitted prior art for the purpose of improving cooling.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tomoyoshi in view of Umeda et al.

Regarding claim 9, Tomoyoshi shows all of the limitations of the claimed invention except showing the alternator wherein a conducting wire of said stator winding extends outwards in an axial direction from an end surface of said stator core and is formed into coil ends having a uniform shape in a circumferential direction.

However, Umeda et al. show the alternator wherein a conducting wire of said stator winding extends outwards in an axial direction from an end surface of said stator core and is formed into coil ends having a uniform shape in a circumferential direction (Fig. 3) for the purpose of reducing wind resistance and to improve cooling (Col. 2, lines 60-68).

Art Unit: 2834

Since Tomoyoshi and Umeda et al. are all in the same field of endeavor, the purpose disclosed by Umeda et al. would have been recognized in the pertinent art of Tomoyoshi.

It would have been obvious to one having ordinary skill in the art to form an alternator wherein a conducting wire of said stator winding extends outwards in an axial direction from an end surface of said stator core and is formed into coil ends having a uniform shape in a circumferential direction as taught by Umeda et al. for the purpose of reducing wind resistance and to improving cooling.

Conclusion


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh N Nguyen whose telephone number is (703) 305-3466. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-3431 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

HNN

August 22, 2003


BURTON S. MULLINS
PRIMARY EXAMINER